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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,388	06/24/2003	Feng-Ting Pai	404700	1697
27717	7590	09/27/2005	EXAMINER	
SEYFARTH SHAW LLP 55 EAST MONROE STREET SUITE 4200 CHICAGO, IL 60603-5803			WU, XIAO MIN	
			ART UNIT	PAPER NUMBER
			2674	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,388

Applicant(s)

PAI, FENG-TING

Examiner

XIAO M. WU

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2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-24-03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipate by Nishimura et al. (US Patent No. 6,400,350).

As to claim 1, Nishimura discloses a method for driving an LCD in a dynamic inversion manner, comprising the steps of: dividing a frame into a plurality of polarity blocks (e.g. positive and negative blocks as shown in Figs. 2a, 2b), each of the polarity blocks covering $2n$ horizontal scanning lines, wherein n is a positive integer; generating an original polarity pattern (Fig. 2a) which has positive polarities for n pixels in each column line of each polarity block and negative polarities for the other n pixels in each column line of each polarity block (see Figs. 2a, 2b); generating a polarity inversion group having $2n$ polarity patterns which record polarity distributions obtained by rotating each row of the original polarity block under a DC balance requirement; and selecting the polarity patterns in the polarity inversion group for driving the pixels (see Figs. 2a, 2b).

As to claims 2, 7, Nishimura discloses each polarity pattern in the polarity inversion group is obtained by sequentially rotating up the original polarity block by one row (e.g. first row of the Figs. 2b).

As to claims 3, 8, Nishimura discloses each polarity pattern in the polarity inversion

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group is obtained by sequentially rotating down the original polarity block by one row (e.g. fifth row of the Fig. 2b)

As to claims 4, 9, Nishimura discloses the polarity patterns in the polarity inversion group for driving the pixels are selected randomly (see Figs 4 and 5).

As to claim 5, Nishimura discloses each of the polarity patterns appears once in one cycle (see Figs. 2a, 2b).

As to claim 6, Nishimura discloses a method for driving an LCD in a dynamic inversion manner, comprising the steps of: dividing a frame into a plurality of polarity blocks (e.g. positive and negative blocks as shown in Figs. 2a, 2b), each of the polarity blocks covering $2n$ horizontal scanning lines, wherein n is a positive integer; generating an original polarity pattern (Fig. 2a) which has positive polarities for n pixels in each column line of each polarity block and negative polarities for the other n pixels in each column line of each polarity block (see Fig. 2a, 2b); generating a polarity pattern which records a polarity distribution obtained by rotating x rows of the original polarity block under a DC balance requirement, wherein x is a positive integer and not larger than $2n$; and selecting the polarity pattern for driving the pixels (see Figs. 2a, 2b)

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US 5,790,092, 6,222,596, 6,396,468, 6,469,684, 2001/0015716, 2002/0154085, 2003/0001812 and 2003/0107544 are cited to teach a LCD including polarity control.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PATRICK EDOUARD, can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

X.W.
September 23, 2005



XIAO M. WU
Primary Examiner
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